

REMARKS:

In the Office Action dated August 26, 2008, claims 1-7 and 9-20, in the above-identified U.S. patent application were rejected. Reconsideration of the rejections is respectfully requested in view of the above amendments and the following remarks. Claims 1-7 and 10-20 remain in this application and claims 8-9 have been canceled.

Claim 1 was objected to due to the phrase "does not contains". Claim 1 has been amended deleting this phrase. In view of this amendment applicants request that this rejection be withdrawn.

Claims 1-7, 9-18 and 20 were rejected under 35 USC §112, second paragraph as indefinite regarding the term "significant". This language has been deleted from the claims. In addition, claim 20 was rejected due to the recitation of "method" instead of "microsilica". Claim 20 has been amended to recite "microsilica". In view of these amendments, applicants request that this rejection be withdrawn.

Claims 1-7 and 9 were rejected under 35 USC §102(b) as anticipated by JP2001-003034. JP2001-003034 discloses an abrasive material but does not indicate that the abrasive material has pozzolanic activity nor that it can be mixed with cement to improve its cementitious characteristics (e.g. compressive strength). Unlike the abrasive material described in JP2001-003034, the microsilica of the present invention exhibits a defined and identifiable pozzolanic activity, since it improves the properties of the cements that are mixed with it. The claims have been amended to indicate that the microsilica has a density less

than 2.4 g/cm³. As disclosed on page 20, lines 10-14, pozzolanic materials with densities less than 2.4 g/cm³ have greater pozzolanic indexes (equal to or greater than 120%) as compared to pozzolanic materials with densities greater than 2.4 g/cm³ (105% or less). Table 6 on page 21 of the present application shows the effect of density on pozzolanic indexes. In addition, applicants point out that in the present invention, the crystal size is 5 to 12 nm while the crystal size in JP2001-003034 can be significantly larger (up to 200 nm). This is due to the fact that the microsilica of the present invention is used for an entirely different purpose than the abrasive according to JP2001-003034. While the crystal size disclosed in JP2001-003034 encompasses the crystal range used in the present invention, applicants contend that JP2001-003034 does not disclose the size range of the present invention with sufficient specificity to anticipate the presently claimed invention. MPEP § 2131.03 (II) indicates that "[w]hen the prior art discloses a range which touches or overlaps the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute." What constitutes a "sufficient specificity" is fact dependent. If the claims are directed to a narrow range, and the reference teaches a broad range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims. See, e.g., *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423

(Fed. Cir. 2006) wherein the court held that a reference temperature range of 100-500 degrees C did not describe the claimed range of 330-450 degrees C with sufficient specificity to be anticipatory.” In the present situation, the cited prior art has a large size range because the prior art is an abrasive. In contrast to this, the microsilica according to the present invention is used as a pozzolanic material and thus must have a narrow size range with a smaller crystal size. The smaller crystal size range used in the present invention is important for pozzolanic activity. In view of the above discussion, applicants respectfully contend that the presently claimed invention is not anticipated by JP2001-003034 and request that this rejection be withdrawn.


Claims 19-20 were rejected under 35 USC §102(b) as anticipated by or alternatively under 35 USC §103(a) as obvious over JP2001-003034. Claim 19 has been amended to indicate that the cristobalite and tridimite have a crystal size of 5 to 12 nm. As discussed above, the cited prior art has a large size range because the prior art is an abrasive. In contrast to this, the microsilica according to the present invention is used as a pozzolanic material and thus must have a narrow size range with a smaller crystal size. The smaller crystal size range used in the present invention is important for pozzolanic activity. Applicants also point out that claim 20 recites a calcination step at 590-620°C prior to milling. JP2001-003034 indicates that the firing is carried out at 800-1,500°C. The use of alkaline metal compounds and calcination at high temperatures (800-1,500°C) in JP2001-003034 results in the generation of alkaline metal oxides and thus result in a different product. In view of the above discussion, applicants respectfully

contend that the presently claimed invention is not anticipated or rendered obvious by JP2001-003034 and request that this rejection be withdrawn.

Applicants respectfully submit that all of claims 1-7 and 10-20 are now in condition for allowance. If it is believed that the application is not in condition for allowance, it is respectfully requested that the undersigned attorney be contacted at the telephone number below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fee for such an extension together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account No. 02-2135.

Respectfully submitted,

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